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**REPLY DECLARATION OF DONNA C. CUPELO,
PATRICK A. GARZILLO, AND MICHAEL J. ANGLIN**

ATTACHMENT 2

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**FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY**

Before the
Federal Communications Commission
Washington, D.C. 20554

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In the Matter of)
)
Application by Verizon New England)
Inc., Bell Atlantic Communications, Inc.)
(d/b/a Verizon Long Distance), NYNEX)
Long Distance Company (d/b/a Verizon)
Enterprise Solutions), Verizon Global)
Networks Inc., and Verizon Select)
Services Inc., for Authorization To)
Provide In-Region, InterLATA Services)
in Rhode Island)

CC Docket No. 01-324

**APPLICATION BY VERIZON NEW ENGLAND
FOR AUTHORIZATION TO PROVIDE IN-REGION,
INTERLATA SERVICES IN RHODE ISLAND**

REPLY APPENDIX B

**APPLICATION BY VERIZON NEW ENGLAND
FOR AUTHORIZATION TO PROVIDE IN-REGION,
INTERLATA SERVICES IN RHODE ISLAND**

CC DOCKET NO. 01-324

REPLY APPENDIX B

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**Selected Portions of the Record of Massachusetts DTE Docket No. 01-20
(TELRIC Proceeding)**

Tab	Date	Description
1	05/04/01	Verizon MA's Panel Testimony on Costs and Rates for Unbundled Network Elements and Related Wholesale Services (Panel Includes Donald Albert, Michael Anglin, John Livecchi, and Nancy Matt) (Without Exhibit)
2	05/04/01	Verizon MA's Direct Testimony of Allen E. Sovereign (Without Exhibit)
3	05/04/01	Verizon MA's Direct Testimony of Dr. James H. Vander Weide
4	07/18/01	Verizon MA's Rebuttal Testimony of Allen E. Sovereign
5	12/17/01	Verizon MA's Panel Surrebuttal Testimony (Panel includes Michael Anglin, Joseph Gansert, John Livecchi, Nancy Matt, Louis Minion) – Redacted Version (Without Attachment)
6	12/17/01	Verizon MA's Surrebuttal Testimony of Dr. John M. Lacey (Without Attachment)
7	12/17/01	Verizon MA's Surrebuttal Testimony of Allen E. Sovereign

**COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF TELECOMMUNICATIONS AND ENERGY**

Investigation by the Department on its own	§	
Motion into the Appropriate Pricing, based	§	
upon Total Element Long-Run Incremental	§	
Costs, for Unbundled Network Elements and	§	D. T. E. 01-20
Combinations of Unbundled Network Elements,	§	
and the Appropriate Avoided Cost Discount	§	
for Verizon New England Inc. d/b/a Verizon	§	
Massachusetts' Resale Services	§	

**PANEL TESTIMONY OF VERIZON MASSACHUSETTS
ON COSTS AND RATES FOR
UNBUNDLED NETWORK ELEMENTS
AND RELATED WHOLESALE SERVICES**

Members of the Panel:

**Donald Albert
Michael Anglin
John Livecchi
Nancy Matt**

May 4, 2001

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1 **I. PURPOSE OF THE TESTIMONY**

2 Q. What is the purpose of this testimony?

3 A. In accordance with the Department's *Vote and Order* of January 12,
4 2001, this testimony is submitted by Verizon Massachusetts ("Verizon
5 MA" or the "Company") to present its recurring cost studies for
6 network elements (and certain related services) offered by Verizon
7 MA to its CLEC customers. Here we take a fresh look at costing and
8 pricing issues, incorporating the latest available data, guided by all
9 relevant rulings of the Department and the FCC (including the FCC's
10 *UNE Remand Order*¹).

11

12 **II. THE WITNESS PANEL**

13 Q. Who are the members of the witness Panel sponsoring this
14 testimony?

15 A. The members of this Panel are: Donald Albert, Michael Anglin, Nancy
16 Matt, and John Livecchi. In addition, we rely on other testimony
17 presented in this case. Dr. William Taylor is submitting testimony

¹ *Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, CC Docket No. 96-98, Third Report and Order and Fourth Further Notice of Proposed Rulemaking (rel. November 5, 1999).

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1 discussing the economic principles guiding the development of these
2 studies. Dr. James Vander Weide is submitting testimony on the cost
3 of capital. Mr. Allen Sovereign is submitting testimony on
4 depreciation (asset lives).

5 Q. What role did each member of this Panel play in the preparation of
6 this testimony and the associated studies?

7 A. Although all members of this Panel have reviewed and support this
8 testimony in its entirety, each Panel member assumed primary
9 responsibility for specific segments of the testimony. Each Panel
10 member relies on the facts and analyses developed by the other
11 Panel members in their areas of primary responsibility. Specifically:

- 12 • **Mr. Albert** had primary responsibility for issues relating to the
13 utilization factors and network architecture, with the exception
14 of the loop.
- 15 • **Mr. Anglin** had primary responsibility for the development and
16 review of the costing principles and methodologies used in the
17 studies, as well as being specifically responsible for
18 investment loadings, the development of Annual Cost Factors
19 ("ACFs"), the local loop studies, and Enhanced Extended Link
20 ("EEL") testing costs.
- 21 • **Ms. Matt** had primary responsibility for the cost studies for
22 high capacity loops, switching, transport, signaling systems,
23 and Service Management Systems ("SMS"), and
24 miscellaneous studies.

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- 1 • **Mr. Livecchi** had primary responsibility for issues relating to
2 the utilization factors and network architecture associated with
3 the loop.

4 Q. **Mr. Albert**, please describe those aspects of your professional
5 background most pertinent to your testimony.

6 A. I am Network Engineering Director of Competitive Local Exchange
7 Carrier ("CLEC") Implementation for Verizon Services Corp. (formerly,
8 Bell Atlantic Network Services, Inc.). In that position, I am directly
9 involved in the negotiation of CLEC interconnection agreements and
10 the network implementation of CLEC unbundling, interconnection and
11 collocation arrangements throughout the former Bell Atlantic region. I
12 earned my Bachelor of Science degree in Civil Engineering from Virginia
13 Tech in Blacksburg, Virginia, in 1977. Since then, I have had over 23
14 years of telecommunications experience with Verizon, Bell Atlantic and
15 the C&P telephone companies. During this time, I have held a variety of
16 positions of increasing responsibility in Network Operations, Sales, and
17 Network Planning and Engineering. I have been in my current position
18 for four years. Prior to my present assignment, I was Director of
19 Customer Network Engineering for Bell Atlantic. In connection with
20 various CLEC arbitrations, and Section 271 local competition
21 proceedings, I have previously testified before commissions in

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1 Massachusetts, Maine, New Hampshire, New York, Pennsylvania, New
2 Jersey, Maryland, Virginia, Delaware, Washington, D.C., and West
3 Virginia on a range of subjects associated with the design, engineering
4 and operation of telecommunications equipment and networks.

5 Q. **Mr. Anglin**, please describe those aspects of your professional
6 background most pertinent to your testimony.

7 A. I am a Director of Regulatory Support for the Verizon Service Cost
8 organization. I have been employed by Verizon and its predecessor
9 companies since 1971. In my current position, I am responsible for
10 directing the development of service cost studies in support of
11 regulatory filings throughout Verizon. Since 1991, I have held
12 positions of increasing responsibility within Verizon's Service Cost
13 organization. I have been responsible for developing cost
14 methodologies, conducting cost studies, and supporting the
15 Company's cost studies before state regulators throughout the
16 Verizon region. I previously testified before this Department in Phase
17 4 of the Consolidated Arbitrations regarding TELRIC studies for
18 unbundled network elements. I have also testified on similar matters
19 in Maine, New Hampshire, Rhode Island, and Vermont. From 1987 to
20 1991, I was assigned to the Company's Network Operations Center,

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1 with the responsibility for providing expert technical support for the
2 Company's switching network throughout the New England states.
3 Prior to 1987, I held a variety of positions with New England
4 Telephone in the areas of Network Operations and Network
5 Engineering.

6 Q. **Ms. Matt**, please describe those aspects of your professional
7 background most pertinent to your testimony.

8 A. I am a Manager within Verizon's Service Costs organization. I
9 received a Bachelor of Science Degree in Applied Physics from
10 Stockton State College in 1979 and a Master of Science Degree in
11 Computer Science from Stevens Institute of Technology in 1983. I
12 am a Licensed Professional Engineer in the State of New Jersey.
13 After receiving my Bachelor's degree, I spent five years working for
14 various engineering consulting firms as a civil engineer. I began my
15 career with NYNEX in August 1984, as a Central Office Equipment
16 Engineer, and I was responsible for the implementation of carrier
17 facilities installations for the West 50th Street Central Office. In
18 October 1988, I was promoted to the position of Project Manager in
19 the Project Management group within the Network Engineering
20 Department. In July 1990, I was promoted to Engineering Manager of

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1 the Switch Engineering group within the Engineering Department. In
2 this position, I was responsible for developing end-office switch
3 engineering methods. In November 1991, I was reassigned as the
4 Engineering Manager of the Outside Plant Planning group,
5 responsible for analyzing and recommending new technologies for
6 infrastructure deployment in the Midtown Manhattan market area. In
7 December 1993, I was reassigned as the Engineering Manager of the
8 Outside Plant Design group, responsible for all outside plant design
9 and implementation for the Midtown West Manhattan market area. In
10 April 1995, I was reassigned as Staff Manager, Service Costs, where
11 my responsibilities included developing cost studies that served as
12 the basis for tariff and regulatory filings. In January 1998, I was
13 reassigned to my current position as Manager in the Regulatory
14 Support group within the Service Cost organization. I have testified
15 on service costs issues in New York's proceeding on resale and
16 unbundled network elements.

17 Q. **Mr. Livecchi**, please describe those aspects of your professional
18 background most pertinent to your testimony.

19 A. I am currently Director for FCC and Regulatory Support for Verizon's
20 Outside Plant Engineering ("OPE") Organization. My group supports

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1 the field OPE groups, managing issues relative to FCC merger
2 compliance, 271 long distance entry, joint use agreements, and State
3 Regulatory support. In 1983, I earned a Bachelor of Science Degree
4 in Industrial Engineering and Operations Research from Syracuse
5 University and a Master of Science Degree in Management of
6 Technology from the University of Pennsylvania in 1996. I have 17
7 years of experience in the design and planning of outside plant
8 networks. I began my career in 1984 in the outside plant engineering
9 department of the former NYNEX Company. Since that time, I have
10 held a variety of positions of increasing responsibility in outside plant
11 engineering with former Bell Atlantic and now Verizon.

12

13 **III. SCOPE OF SERVICES CONSIDERED IN THIS FILING**

14 Q. What services are included in this filing?

15 A. In the revised version of Rule 319² set forth in the *UNE Remand*
16 *Order*, the FCC identified six network elements to which incumbent
17 LECs are required to provide access on an unbundled basis under

² 47 C.F.R. § 51.319.

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1 § 251(c)(3) of the Telecommunications Act of 1996. These are local
2 loops, Network Interface Devices, switching, interoffice transport,
3 signaling systems and databases, and Operations Support Systems
4 ("OSS"). Mr. Minion discusses the OSS network element in his
5 testimony. We discuss the other five required elements separately
6 below, certain element combinations, and miscellaneous services.

7 1. The **local loop** studies included in this filing address the four
8 basic types of loops addressed (two- and four-wire analog loops, and
9 two- and four-wire digital loops), as well as DS1 loops and high-
10 capacity loops (DS3 and above loops), dark fiber loops, subloops
11 (including house and riser), and ADSL/HDSL-compatible loops.

12 Studies of line sharing (*i.e.*, situations in which a CLEC offers data
13 services over the same physical loop as is used by Verizon MA to
14 provide voice services), and of conditioning charges for DSL-
15 compatible loops, are also included here.

16 2. Studies are included in this filing for Network Interface Devices
17 ("**NIDs**").

18 3. The **switching** studies included here address both local and
19 tandem switching. Separate rates are set for ports and switch usage,
20 and feature costs are specifically identified.

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1 4. This testimony presents a full range of unbundled **interoffice**
2 **transport** offerings.

3 5. With respect to **signaling system and databases**, Verizon
4 MA offers STP ports, signaling links, SS7 transport, and access to
5 certain call-related databases in this filing. Also included in this filing
6 are Service Management Systems ("SMS") costs.

7 6. **Element combinations.** This filing considers additional
8 charges applicable to combinations (*i.e.*, the EEL Testing Charge)
9 beyond the sum of the recurring charges for the constituent elements.
10 The NRCs are described in the testimony of Mr. Meacham.

11 7. Our testimony also includes a number of cost studies to
12 support miscellaneous charges such as customized routing and Daily
13 Usage File ("DUF").

14 We note that Verizon MA has not included costs associated with
15 Operator Services/Directory Assistance ("OS/DA") in this filing. The
16 FCC determined in its *UNE Remand Order* that incumbent LECs are
17 not required to offer unbundled access to OS/DA, as long as they
18 offer customized routing, as Verizon MA does.

19 Q. Do the cost studies provided in this filing support all of the rates currently
20 contained in Verizon MA's Wholesale Tariff ("D.T.E. - Mass. - No. 17")?

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1 A. While most costs provided in this filing translate directly into wholesale
2 rates contained in the Wholesale Tariff, the rates for certain rates
3 (sometimes referred to as "composite" rates) are based on a combination
4 of the costs of individual elements. For example, meet Point A and B
5 intercarrier compensation rates are based on a combination of Local
6 Switching and Interoffice Transport costs. Verizon MA will revise its
7 Wholesale Tariff at the conclusion of this proceeding with new composite
8 rates based on the costs which the Department sets for the individual
9 elements.

10

11 **IV. STRUCTURE OF THE FILING: TESTIMONY, EXHIBITS,**
12 **WORKPAPERS, AND COST MODELS**

13 Q. How is the Panel Testimony and supporting documentation
14 organized?

15 A. The Panel testimony is organized into the following sections:

- 16 • Section V presents the Company's basic costing and pricing
17 approach, including detailed discussions of the Company's
18 approach to determining investments and expenses.
- 19 • Section VI presents the basic forward-looking network
20 technology model that underlies Verizon MA's studies.
- 21 • Sections VII through XII present the investments and recurring
22 (or usage-based) costs for each of the network elements,
23 combinations, and miscellaneous services discussed above.

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1 Supporting materials for the Panel testimony are incorporated into a
2 single Exhibit that is subdivided as follows:

- 3 • Part A – Results/Index
- 4 • Part B – Local Loops
- 5 • Part C – Switching
- 6 • Part D – Interoffice Transport
- 7 • Part E – Signaling Systems and Databases
- 8 • Part F – Miscellaneous Services
- 9 • Part G – Factors

10 Part A contains a summary of the results of each study element and a
11 complete cost study index that contains references to all workpapers
12 as well as the electronic files which accompany this filing.

13 Certain of the workpapers and exhibits are proprietary, and are being
14 filed only with the Department and will be provided to other parties
15 pursuant to a properly executed non-disclosure agreement.

16 The Company's studies were developed in part using two costing
17 tools or models that the Company has developed — a loop cost
18 model ("LCAM") and an interoffice transport model. Copies of these
19 models are included in this filing.